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'Hemi-Sync'

Officials explore using sound waves in schools

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FABER — Thirty school administrators sit in a conference room listening to two educators and researchers extol the value of a student learning aid. Soft music plays in the background.

The music is unobtrusive enough that, in another setting, it might not be noticed. But that music is why everyone is here.

The music, which developers of the technique call neo-classical, is a step away from elevator music and musical miles from today's popular songs. The music alone may be calming, but it's primary purpose is to mask other sounds.

The music masks sound waves that Devon Edrington and Jo Dee Owens say can be used to make children more attentive in class and so learn more.

The use of sound waves to induce certain mental states is not a new idea. Robert Monroe and his associates at the Monroe Institute of Applied Sciences in Faber have been working for years with similar procedures that are now used by executives, insomniacs and athletes to enhance concentration or help them sleep.

The use of sound waves in the realm of public education is relatively unexplored territory.

Edringtron, a philosophy professor at Tacoma Community College in Washington state, has been developing "Hemi-Sync" for about five years. Ms. Owens, a Tacoma Public Schools teacher, began using an adapted method of "Hemi-Sync" in her first-grade classroom about a year and a half ago.

Other teachers have used the method on a limited basis with varying degrees of success, they said. The Tacoma city schools will use the method on an experimental basis in 10 classrooms next year.

"Hemi-Sync" uses sound waves blended with music to help students be more attentive in class and thus learn better, Edrington and Ms. Owens told school administrators from Lynchburg city schools, Nelson, Augusta and Floyd counties and West Vriginia, North and South Carolina at a seminar Thursday at the Institute.

Was one seminar enough to convince local administrators to try "Hemi-Sync"? Not quite.

The two city administrators at the session had varying opinions about the use of "Hemi-Sync" in the classroom, but they agreed additional study of the system is a must.

Edwin L. Warehime, Lynchburg public schools' supervisor for elementary education, was intrigued by the system and said the city schools may invest in one of

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the units and do some local research on the validity of the "Hemi-Sync" approach to increased learning.

"We don't experiment with the kids, so anything we do has to have a degree of validity somewhere along the track that would get us to take a chance on it," Warehime said.

"Then we would have to verify ourselves if it was taking us where we wanted to go."

Warehime said the city school system may send teachers to a "Hemi-Sync" training session at the Institute next week.

Charles V. Sheusi, chief psychologist for the city schools, was impressed by the concept, but is prepared to wait for results from the Tacoma program before introducing the method into the city schools.

He said he thinks more research is in order before most school systems will introduce it as a classroom learning aid.

"In order to have credibility with the school board, with administrators like myself and parents, especially, we have to have some proof behind it. And Tacoma would be the place," Sheusi said.

"Hemi-Sync" was developed with the knowledge that the brain produces four basic types of waves all the time. Of the four, one induces alertness and the capacity for problem solving.

One brings on a more relaxed stage of alertness. A third induces a state of almost reverie. A fourth brings about a deep sleep, Edrington said.

What makes the difference in whether you are alert or asleep depends on the quantity of each type of wave in the brain, he said. Doctors and scientists can monitor brain waves with an electroencephalogram (EEG).

"Hemi-Sync" produces sound waves at the same frequency as waves produced naturally by the brain. Students are surrounded by the waves, which are blended with commercially produced music and played over a stereo system.

The term "Hemi-Sync" comes from the method's basic premise —synchronizing the two hemispheres of the brain will increase the potential for learning. Scientists have long said that the right side of the brain is the center of creativity, while the left side is more technically oriented. Edrington and Ms. Owens said encouraging the two hemispheres to work together adds learning potential.

They caution that the system is not an educational panacea and agree that it will never replace good teaching. But Edrington and Ms. Owens said it sets the stage for good learning.

Ms. Owens' first-grade class, after being exposed to the sound waves on an almost daily basis for a year, scored the highest of any first grade class in her school district on state-administered objective tests, she said.

The class, which is comprised of average to low-average students, would not have been expected to do that well under normal circumstances.

Ms. Owens attributes the higher test scores to the use of "Hemi-Sync."

Ms. Owens said it is not necessary to use the sounds continuously to get children in a state of mind to learn. Once they have become accustomed to the music and its effects, she said, they continue to learn better.

Her theory is that the children learn how to learn. With the help of "Hemi-Sync" they find out what it feels like to learn and they begin to take responsibility for their own learning.

The gray boxes that produce the sound waves are available to other school systems at a cost of $395. The speakers and tape player necessary to blend music with the sound waves will cost about $225, Edrington said.